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TI Use of known glycogen phosphorylase inhibitors in medicaments for the treatment of infections.

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IN SUTCLIFFE, J A; TREADWAY, J L

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AU---200124871 A 20010913 (200210)

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KR--2001088417 A 20010926 (200220)

HU---200100973 A2 20020228 (200223)

ZA---200101821 A 20021127 (200305) 45

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US-----6555569 B2 20030429 (200331)

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2001ZA-0001821 20010305; NZ-----510369 A 2001NZ-0510369 20010306;

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AB EP 1149580 A UPAB: 20020213

NOVELTY - Use of heteroaryl substituted N-(indole-2-carbonyl) amide derivatives (I), their salts and prodrugs in the manufacture of a medicament for treating infection in a mammal is new.

DETAILED DESCRIPTION - Use of heteroaryl substituted N-(indole-2-carbonyl) amide derivatives of formula (I), their salts and prodrugs in the manufacture of a medicament for treating infection in a mammal is new.

dotted line = optional bond;

A = -(CH)=, -C((1-4C alkyl)= or C(halo)= when the dotted line is a bond; or

A = methylene or CH(1-4C alkyl) when the dotted line is not a bond;

R1, R8, R9 = H, halo, 4-, 6- or 7-nitro, CN, 1-4 C alkyl, 1-4C alkoxy, CH2F, CHF2 or CF3;

R2 = H;

R3 = H or 1-5C alkyl;

R4 = H, Me, Et, n-Pr, hydroxy(1-3 C alkyl), (1-3 C)alkoxy(1-3C alkyl), phenyl(1-4C alkyl), phenyl-hydroxy(1-4C alkyl),

phenyl(1-4C)alkoxy(1-4C alkyl), thien-2- or -3-yl(1-4C)alkyl or fur-2- or -3-yl(1-4C)alkyl where R4 rings are mono-, di- or tri-substituted on C by

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H, halo, 1-4C alkyl, 1-4C alkoxy, CF<sub>3</sub>, OH, NH<sub>2</sub> or CN;

R<sub>4</sub> = optionally substituted heterocyclyl or heteroaryl;

R<sub>5</sub> = H, OH, F, 1-5C alkyl, 1-5C alkoxy, 1-6C alkanoyl, amino(1-4C alkoxy), mono-N- or di-N, N-(1-4C)alkylamino(1-4C alkoxy), carboxy(1-4C alkoxy), 1-5C alkoxy-carbonyl(1-4C alkoxy), benzyloxy-carbonyl(1-4C)alkoxy or carbonyloxy (the latter being C-C linked with Ph, thiazolyl, imidazolyl, 1H-indolyl, furyl, pyrrolyl, oxazolyl, pyrazolyl, isoxazolyl, isothiazolyl, pyridazinyl, pyrimidinyl, pyrazinyl, or 1,3,5-triazinyl), the preceding R<sub>5</sub> rings being optionally mono- or di- substituted by halo, CF<sub>3</sub>, (1-4 C)alkyl, 1-4C alkoxy, NH<sub>2</sub> or OH and the mono or di-substituents are bonded to C;

R<sub>7</sub> = H, F or 1-5C alkyl; or

R<sub>5</sub>+R<sub>7</sub> = oxo;

R<sub>6</sub> = C(O)R<sub>10</sub>;

R<sub>10</sub> = optionally substituted heteroaryl or heterocyclyl;

R<sub>12</sub> = H, Me, Et, n-propyl, hydroxy(1-3C alkyl), (1-3C alkoxy)(1-3C alkyl), phenyl(1-4C)alkyl, phenyl-hydroxy(1-4C alkyl), (phenyl)(1-4C alkoxy-1-4C alkyl), thien-2- or -3-yl(1-4C alkyl) or fur-2- or -3-yl(1-4C alkyl) where R<sub>4</sub> rings are mono, di- or tri-substituted on C by H, halo, 1-4C alkyl, 1-4C alkoxy, CF<sub>3</sub>, OH, NH<sub>2</sub>, CN, or 4,5-dihydro-1H-imidazol-2-yl; or

R<sub>12</sub> = optionally substituted heteroaryl or heterocyclyl or R<sub>11</sub>-carbonyloxymethyl;

R<sub>11</sub> = Ph, thiazolyl, imidazolyl, 1H-indolyl, furyl, pyrrolyl, oxazolyl, pyrazolyl, isoxazolyl, isothiazolyl, pyridyl, pyridazinyl, pyrimidinyl, pyrazinyl or 1,3,5-triazinyl (all optionally mono- or di-substituted by halo, NH<sub>2</sub>, OH, CF<sub>3</sub>, 1-4C alkyl, or 1-4C alkoxy and the substituents are bonded to C);

R<sub>13</sub> = H, Me, Et, n-propyl, hydroxymethyl or hydroxyethyl;

R<sub>14</sub> = C(O)R<sub>15</sub>;

R<sub>15</sub> = optionally substituted heteroaryl or heterocyclyl.

ACTIVITY - Antibacterial; Fungicide; Antiparasitic; Virucide.

In an assay to evaluate inhibition of Chlamydia pneumoniae in Hep-2 cells, compounds of formulae (Ia) and (Ib) had MIC values of 12.5 and 25 micro g/ml, respectively. In a nearly identical protocol to distinguish compounds that interfere with latter stages of C. pneumoniae, and which involved adding the test compounds 15 hours after challenge of Hep-G2 cells with pneumoniae, (Ia) and (Ib) had MIC values of 12.5 and 50 mu g/ml, respectively.

MECHANISM OF ACTION - Glycogen phosphorylase inhibitor.

USE - (I) Are useful in the manufacture of medicaments for treating infections, in particular Chlamydia pneumoniae infection (claimed).

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